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Zambia, Factor 11: Malnutrition

Intro

Zambia, one of the most politically stable countries in Africa, is facing one of the most concerning problems in the world. Zambia has a problem concerning the undernourishment of nutrients needed for homeostasis known as malnutrition. People cannot have a sustainable amount of food which causes a malnourishment of essential nutrients. The African country of Zambia has been working to end its outbreak of hunger. The number of people at risk of food insecurity in Zambia rose from 63,000 in 2012 to 209,000 in 2013. Following I will share with you a more detailed analysis facing Zambia.

Households and Lifestyle

For many Zambians, the staple food is maize/corn. The local cuisine is based on nshima, a porridge made from grounded maize. Households in Zambia average about 6.6 individuals per households and range from 1-40. The head of the household's gender also plays a role in the number of individuals in the household. Male-headed households average 7.0 individuals per household, and female-headed households average 5.4 individuals per household. This is because in Zambia, the majority of men have larger salaries than women do, so they are able to accommodate and sustain more people in the household. Out of these households 30% of them have at least one chronically ill person present. 80% of households are poor or in poverty. This is because there is a failure in the economy to create sufficient jobs that are productive and sustainable. Because women are paid less than men, there are more female-headed households in poverty than in men-headed households. The poverty rate has decreased agricultural productivity and as well as caused lack of access to input and services, transport, markets and other social insecurities. Fifty percent of the Zambian population is unemployed. This unemployment rate is caused by Zambia's rapid population growth by lack of birth control, which has caused an increase of AIDS/HIV victims. HIV/AIDS can influence family ties being broken resulting in orphan hood, street kids and increases in youth poverty. This is a problem in Zambia because when youth and teenagers are not given love and attention, they engage in horrendous acts such as prostitution, drug abuse, underage drinking as well as criminal acts and other behavior which has a negative impact on the development of the country. Incomes also determine the amount of money that is spent on food. Forty percent of poor households spend 75% or more of their incomes on food. The average salary in Zambia is roughly equal to \$15,000 USD, which is extremely low considering the average cost of living is \$4,479.98 a month. Many Zambians are obligated to spend most of their money on necessities such as food and water. Many areas in rural Zambia are some of the most food insecure areas in the world. 11.3% percent of households get their food from work. Children who are working for their families can be prevented from receiving an education. Twenty-one percent of children aged 6 to 18 have never been to school. This can cause the poverty cycle to continue in Zambia with no leaps in economic development. Since the creation of the free basic education policy in 2002, enrollment in basic education levels has steadily increased. However, children from poor households are the last to enroll in school and the first to drop out; additionally, they are significantly under-represented.

Healthcare

The status of healthcare in Zambia is poor. Although there are plenty of private health facilities in Lusaka, the capital of Zambia, the public health system remains heavily underfunded, and many people requiring serious medical care find themselves evacuated to other countries, such as South Africa, where there are better medical facilities. Zambia offers healthcare to all its citizens. By Western standards this healthcare is very basic and Zambia's public healthcare system is chronically underfunded. Zambia's health-care

system faces shortages of drugs, equipment and qualified medical personnel, especially in rural areas. Zambia has a number of general and smaller hospitals (some of them are run by missionaries) in towns, as well as health centers in rural areas. A policy of free healthcare was made in the late 70s, although services today suffer from not enough doctors and medical specialists. Many Zambian doctors leave the country or work for private healthcare systems, meaning that public health has many unqualified personnel. The Zambian health policy states that “every able-bodied Zambian with an income should contribute to the cost of his or her health”. However, exemptions exist based on age (children under 5 and adults over 65), diseases such as TB, HIV/AIDS, STDs, Cholera, chronic hypertension, diabetes and other factors. This is aimed at enhancing an equal distribution of healthcare to all Zambians, but all practices are not put into action due to lack of resources. Malaria is another problem in Zambia, where 3 million cases were reported in 2009. There is inadequate access to basic health services in Zambia between regions and between urban and rural areas. In urban areas, 99 percent of households are within 5 kilometers of a health facility compared to 50 percent in rural areas. In Zambia, household investments on health vary according to where they live. Poor households spend the highest amount of their income on health, which can be up to 10% of their total income. Long distance, cost and lack of transport in a large but scattered populated country like Zambia is a key factor determining whether people are seeking medical services. A lack of human resources is also present in Zambia impacting the delivery of services.

Climate

Although Zambia lies within the tropics, the climate is cooled by its high altitude. Most of the land is part of a plateau which runs through the African continent. With altitudes of up to 1,600 meters, the cooler temperatures in October can reach up to 45°C in the shade. Zambia’s seasons fall into three seasons: temperatures make a comfortable climate to live in. But in valleys, hotter weather can be more brutal. The rainy season is from December–April. During these months it is warm and wet, with temperatures in the low 20s°C. Most yearly rainfall occurs at this time. The first rains clear the air and wash away the dust. The cool dry season is from May–August. In the middle months of the year, temperatures drop, averaging around 16°C. July is usually the coldest month, with clear skies at night giving occasional ground frost, even in valleys. The hot dry season is September–November. Temperatures rise rapidly and reach into the 30°C. High humidity can make this one of the least comfortable times of the year. The first rains clear the air and wash away the dust.

Agriculture

Zambia has poor soil, but has a climate that favors a lot of plants such as their staple crop maize, wheat, soya beans, ground nuts, coffee, sunflowers, sorghum, rice, cassava, sugar and horticulture. There are other emerging products such as palm, jatropha and barley. Livestock farming includes: beef; poultry; dairy; pork and ruminants such as goats, sheep, rabbits, etc. All these products reflect the huge potential for primary production and the eventual processing that could be developed. Zambia’s total land area is 75 Million hectares (752,000 Km), 58% (42 Million hectares) has a medium to high potential for agricultural production. Only 14% of that land has been utilized for agriculture production. 90% of unemployed Zambians get their food from government food aid. Most farmers in Zambia are small scale farmers and produce low yields of crops, which can cause shallow quantities of crops at markets. Much of Zambia’s farming remains dependent on wet monsoon rains. Unexpected weather such as floods or drought can devastate the communities of Zambians as well as crop production. Efforts are being made to increase yields by introducing techniques such as crop rotation and intercropping. Crops that improve soil quality such as velvet beans and hemp are also being endorsed. Farmers are small scale because they do not have access to financial services and long term finance. Farmers are now choosing crops which have higher levels of essential nutrients. An orange maize/corn is being grown in Zambia which has high levels of Vitamin A, which is essential for children to develop a healthy immune system. The most

problematic things that decrease agricultural productivity, and access to food in Zambia are poverty, low yields of crops and malnutrition.

Intro to Women and Children

The undernourishment rate for children in Zambia is one of the highest in the world with a rate of 48%, or one in two children. The undernourishment rate in Zambia has doubled in the past two decades. When people do not eat enough nutritious food, they tend to feel hungrier or rely on complex carbohydrates to keep them full. Many people cannot even get enough food at all before acknowledging the fact they contend with many small scale farmers that have a low yield of crops. This makes the access to enough food and nutrition hard for non-farmers and schools to get access to highly nutritious foods. Low quantities of food and high demands cause inflation and can make it difficult to obtain proper for with an lower income

Women and Children

Currently there is a 54% rate of vitamin A deficiency in children under five and a 13% among women. 4% of all children and women are facing iodine deficiency. That is a major problem because an under-nourished pregnant woman or child will lower the survival rate of the child or the born child. The body needs iodine to make thyroid hormones. These hormones control the body's metabolism and many other important functions. Having an undernourished child during pregnancy and the first 1,000 day period after being born can cause the child's cognitive function to not develop properly because during the first two years of a child's life their brain is being developed for a critical aging process. Under-nourishment can also cause mental retardation. A lack of vitamin A can cause visual impairment, blindness, and increases the risk of severe illness, and even death. It can also cause common childhood infections in Zambia such as diarrhea, pneumonia, measles, malaria, and can a cause underweight body weight, poor school performance and reduced productivity.

Current Events and El Nino

Currently, Zambia is having above average rainfall because of El Nino. This has caused an increase in the production of agriculture, fisheries, wildlife and tourism. When the El Nino occurred, there were higher yields of crop production in corn, which has caused the country to produce higher yields of crops which has increased surplus for Zambians and has also boosted GDP growth in the country. According to a recent study, higher crop yields will help boost corn production to 2.87 million metric tons from 2.62 million tons of corn that was made last year. That's about 635,000 tons of crops more than is required for domestic consumption. Even though the rainfall from El Nino has caused a great success in economic production the drought after El Nino has decreased the rainfall which has caused destruction in livestock condition, increased food insecurity and malnutrition.

Why it needs to stop

Undernutrition is getting worse and worse by the day. It causes 5% of child mortality deaths worldwide. The rates of undernutrition are measured via survey and number per thousand. In 2007, the rate was 119 for 1,000 live births of undernourished children, and in 2010, it was 148 per 1000 live births. Any form of natural disaster may also cause an increase in the rate of undernutrition. Change needs to happen in order to improve this situation. Reducing the rate of malnutrition will cause a higher child survival rate that will lead to more workers and more educated professionals that create jobs to benefit the economy. There is a lot of land in Zambia that can be used for jobs in agriculture. Only 14% of the land that can be used for agriculture is currently being used. That means that the country can suffice enough jobs for everybody to have a job that is involved in agriculture. More jobs will therefore increase the income of fellow

Zambians and will allow more access to healthy food. Higher income could also cause farmers to produce more crops that will decrease the rate of food insecurity. Assuming all of those would correspond well as planned this would lead the country in progress for production.

Solution

In order to solve this problem, multiple things have to be done. Many organizations and groups such as Hudson Alpha Institute of Biotechnology, the Alabama Farmers Federation, the Food and Agriculture Organization of the United Nations (FAO), and United Nations Children's Emergency Fund to help or continue helping with the nutritional status of this country and research. These organizations could help with some form of agricultural aid, research, environmental aid and educational aid.

I used some more local groups and international groups, so that even in my community, I can make a difference. This aid will require the country to unify and work together and solve this problem. The agricultural aid can be given by the FAO and UNICEF to help supply plants such as sweet potatoes and peanuts that help feed people in the country and help supply research facilities such as Hudson Alpha Institute of Biotechnology for materials and equipment in research for this problem.

I would propose research can be given by many agriculture-related facilities to increase nutrition in plants and create more crops with high levels of vitamin A that can live in Zambia's climate conditions.

Environmental aid can help to find way to make clean water available and create more ways to reduce the effects of natural disasters on crops in agriculture. Educational aid will help get children in schools and help give children access to further their education in careers related in the field of agriculture. Fixing the problem of malnutrition can also reduce the poverty rate; increase economic growth; educate children to learn about agriculture; help Zambia's own communities in their country; and lead Zambia into a phase in which they can sustain their own food and agriculture.

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